THE
BOSTON MEDICAL AND SURGICAL
JOURNAL.

VOL. VI.] WEDNESDAY, APRIL 4, 1832. [NO. 8.

FRACTURE OF THE SKULL.

A Case of Comminuted Fracture of the Skull, with loss of Brain and Fungus Cerebri. By ABRAHAM ADAMS, M.D., of Cynthiana, Kentucky.

ON the 6th of September I was requested to visit a boy, eight miles distant, who had received a kick on the head from a horse. The messenger had not seen the boy, and knew nothing about the extent of the injury ; but had been informed that the skull was not broken, and therefore I did not take trepanning instruments with me.

On my arrival I found the boy, who is about nine years of age, very restless, writhing and twisting continually like a wounded worm. He could not be held still—his eyes were permanently open, his pupils dilated, his pulse irregular, his respiration somewhat labored. On removing the coagulum of blood which filled the depression in his skull, I ascertained that there was a comminuted fracture, with a rupture of the membranes, some of the brain having been discharged through the rupture, and every violent exertion causing a continuation of the discharge. I immediately despatched a messenger for trepanning instruments. In the mean time, I placed my hand over the orifice in the membranes, to prevent, when the patient made such exertion, any further loss of brain.

The boy was not seen at the instant the blow was inflicted. The stroke was heard by some persons who were near ; looking in the direction, they saw the boy falling, and the animal with the appearance of having just kicked. From the seat of the injury the boy must have been stooping forward ; he had also an extensive contusion on his hip and on the left arm, near the elbow. The presumption is that in leaning forward, (which would bring the elbow to the hip, and the top of the head in a situation to receive the blow,) the animal kicked with both feet ; that one struck the head, and the other the contused arm and hip. The mare no doubt kicked with her utmost force, as she was at the time teased by a stallion.

In about two and a half hours, having procured instruments, I proceeded to the operation. I made a crucial incision in the scalp, turned up the flaps, and removed all the detached portions of bone. The fracture was seated in the left parietal bone, extending in length about two and a half inches, near the middle of the bone and nearly at right angles with the sagittal suture. A line drawn from one ear to the other would pass over it a little obliquely.

The removed portions of the bone, when placed together, formed an irregularly shaped figure. In the centre it was about one and three-fourth inches in width; at the extremity next the sagittal suture, not more than three-fourths of an inch, and of an angular shape; at the opposite extremity, it was one and a fourth of an inch in width, of an irregular circular form. At this extremity the plates of the bone were separated, and five spiculæ of the under plate driven through the membranes into the substance of the brain. I saw one partly buried in the brain, which led me to seek for the four that were entirely concealed from view. I introduced my finger, felt the spicula, and making my finger a director, followed it with the forceps, seized the bone, and extracted it. One of the four removed in this way was three-fourths of an inch in length, rather more than half of an inch in width, having irregularly serrated edges. The rest were of smaller dimensions. From the extremity last mentioned a fissure extended into the occipital bone, the extent of which appeared considerable. I did not trace it far, as no necessity existed for it.

About half an inch from this extremity, there was a depressed portion of bone of a semicircular form, not more than half an inch in its widest diameter, separated from the main fracture by a space of sound bone, not more than half an inch in width, connected with and situated entirely on that side of the fissure, before spoken of, next the occipital. From the situation of this depressed portion, it was impossible to apply the elevator so as to raise it, and as the scalp was lacerated over the depression, I determined to remove it with the trephine. How this small portion was depressed, separated from the other, I did not entirely satisfy myself; the most probable conjecture to me was that it had been done by the heel of the horse's foot, or some irregularity in the hoof, the animal being unshod.

The other fractured portions were so completely detached, that there was but little difficulty in removing them, except a portion near the middle of the fracture, in its widest part. This portion was divided equally in a longitudinal direction. The middle edges were driven in, and very tightly wedged together; and the outer edges being irregular, and the under plate wider than the upper, rendered its removal very difficult. I however succeeded, by clipping off the irregular projections in the upper plate, at several points, and then elevating the centre. From appearances, corroborated by the statements of those who had been with the boy from the beginning, it was evident that a considerable quantity of blood had been lost. In making my incisions I divided a branch of the occipital artery, which I considered as a fortunate circumstance, and permitted it to bleed, until from the quantity lost I thought it prudent to check it by pressure. During the operation there were several ounces of blood lost from branches of the middle artery of the dura mater, that were ruptured, their impression on the removed bone being very distinct.

After having removed all the detached bone, and the coagula that formed in the depression, I brought together the edges of the divided scalp by a few sutures, leaving the part entirely open from which the bone had been removed. During the operation he gave no symptoms of suffering except when I made the incision in the scalp; the force of several men was then necessary to hold him.

I placed the patient in bed, having his head elevated; he lay quiet during my stay that evening, which was not more than an hour after I had him removed from the table to the bed. The restlessness and contortions of his body which had been noticed, no longer continued. He seemed disposed to sleep. His pulse and respiration were not much improved. The boy slept some during the fore-part of the night; but in the latter part fever having supervened, he was bled to eight ounces.

On the morning of the 7th I saw him at 10 o'clock, and finding his skin hot, and his pulse active, I took nine or ten ounces of blood; gave him pulvis jalapæ; directed it to be repeated every three hours, until three portions had been given. If that did not operate, then to give oleum ricini, and if in two hours no operation was effected, to administer an injection. The boy had not yet spoken. Yet he seemed to understand the queries put to him, though he did not speak. My directions were strictly followed, without producing the desired effect. The patient became so extremely restless and unmanageable in the latter part of the night, that a messenger was despatched for me. On the morning of the 8th, I arrived at an early hour, and found my little patient very untractable. Unless held, he would roll over his bed, and make efforts to get up. The injections had been retained. I immediately attempted the introduction of a suppository of soap, which on account of the spasmodic contraction of the sphincter was not easily effected. In a few moments the soap was discharged, followed by a copious evacuation of fæcal matter.

As no urine was discharged, and his restlessness continued, I was led to examine his bladder, which was found to be greatly distended. While reflecting on the best mode to effect a discharge (not having a catheter with me), the boy made an effort to rise, saying "let me get up." We then raised him to the floor. A profuse discharge of urine followed. He now became quite composed, and answered rationally questions put to him.

A continuation of the cathartic operation was directed. The suppository of soap was found necessary to effect a discharge, for the five succeeding days. After that time it was no longer used, but a cathartic was daily administered, often repeated several times in the day, until the end of the fourth week. From this period to the sixth week, a cathartic every other day was sufficient; after which no cathartic medicine was administered. During the whole course of the treatment, calomel was administered about once a week, in doses of about ten grs.; the other cathartics used were pulvis jalapæ, pulvis rhei, sulphas magnesiæ, and oleum ricini; these were varied, repeated, or alternated, according to circumstances; restricting him at the same time to the lowest diet.

In the first instance no other application was made to the wound, than a dressing of lint, confined by proper bandaging. The dressing was soon discovered to be stained with bloody serum, and before the morning of the 7th, a large quantity had been discharged. It became necessary frequently to change the pillow, and the piece of cotton cloth that was used to absorb the discharge. This discharge continued for five or six days, though after the third it was much diminished in quantity. On the fourth day the dressing and lint were removed, when the wound made by the incisions in the scalp was found to be suppurating, and serum a little tinged with blood discharged from the part injured by the blow. I renewed the dressings daily for thirty days; after the third dressing I removed the sutures that had not been discharged by the suppurating process, and applied strips of adhesive plaister, that were daily renewed.

On the morning of the 11th the patient became more uneasy and restless than he had been for several days. In a short time he had violent convulsions, which continued for some hours. On inquiry I very satisfactorily ascertained the cause of these convulsions. I had directed them to make a cap of light materials, very large, (to prevent pressure on the wound,) to keep the boy from disturbing the other dressings, for he had from the beginning a constant disposition to tear them from his head with his right hand, (his left being paralytic from the receipt of the injury.) This cap, in opposition to my instructions, was made of coarse domestic linen, and so small as to press tightly on the wound. It was put on in the morning, and in a very short time the boy became restless, and could not be kept quiet; the convulsions followed, and were arrested by the removal of the pressure produced by the cap and bandages, the struggles of the boy having deranged them so much that they were entirely removed by one of the attendants.

The case went on well from this period, nothing remarkable occurring until, as I had anticipated, on the 11th day fungus cerebri made its appearance. I at once determined to adopt the treatment I had heard recommended by Professor Dudley. I enveloped a piece of dry sponge in a strip of gause, and by means of the bandaging confined it to the part. Having early made this application, the fungus was prevented from becoming large, and in a few days it entirely disappeared.

In the seventh week from the time the injury was received, I visited the boy for the last time. The wound was then cicatrized, except a very small portion, a mere point.

Nov. 14th. The boy in company with his mother came to town today, on horseback. The wound is completely healed. He has perfect use of the arm that had been paralysed. His mental faculties seemed not in any degree impaired. His health is perfect. He has been several times to mill, riding on a bag, a distance of five or six miles.

Transylvania Medical Journal.

LOCAL APPLICATION OF CAMPHOR.

To the Editor of the London Medical Gazette.

Sir,—My latter communications to you have contained some striking instances of the powerful effects which the local application of camphor produces. I have reason to suppose that even the action of the heart is under the influence of its power, and adduce the following case in support of this opinion.

A child, suffering from some peculiar affection of the brain, sunk into that state of torpor which is generally the result of effusion into the cavities. The following was the state of the child when I determined to try the effects of camphor on the heart. It was lying perfectly senseless, with a slight flush in the countenance, was squinting, the pupils dilated, the pulse beating about 64 in the minute, intermitting every fourth stroke. I enveloped the whole chest, anteriorly and posteriorly, with a piece of flannel, soaked in the following camphorated solution.

Gum Camphor, ℥ iss.
Sp. Vin. Rect. ℥ iij. M. f. solut.

In less than five minutes, the child, who had lain perfectly senseless and quiet for some hours, became pale, moaned, and appeared restless and distressed, the pulse beating so rapidly that it was almost impossible to count it. These appearances increasing, I removed the flannel from the chest, and the child in a few hours had returned to the state in which it was previous to the application of the camphor, and died in about twenty-four hours. It was not with any expectation of benefiting my little patient that the experiment was made, but his hopeless state, in my mind, justified the trial. It is not my intention to suggest any peculiar conditions of the system, or of the heart itself, in which this application might be useful, but I can imagine many, and trust that my hopes may not be deceived, when the opinion is again put to the test of experiment.

I have lately used the same local application to the perineum in a case of gonorrhœa dormientium. Previous disease had induced excessive debility, which every paroxysm of this attack aggravated considerably. Nearly three weeks have elapsed since the application was had recourse to, and no paroxysm has actually occurred since.

From ascertaining, by repeated experiments, the great value of this application, and from having successfully applied it in cases that might be said to be somewhat analogous to cholera, I would venture, with some degree of confidence, to suggest its use in that disease. If a case occurred in my own practice, I should, without hesitation, envelope the whole abdomen, from the ensiform cartilage to the pubis, and the corresponding portion of the back, in flannel, soaked in the solution, and I should do it in great expectation of some advantage following; for it appears to me that it is only in cases where the nervous power is absolutely deficient, (not in those in which it is in a state of diseased action,) that the application could in any way be prejudicial. I am, Sir,

Your obedient servant,

Kensington, Dec. 14*th*, 1831. HENRY GEORGE.

Mrs. G., a short, stout woman, was delivered on Thursday, the 15th December, 1831, of her fourth child, after somewhat more than her usual suffering upon that occasion. She went on well until Saturday the 17th, when I found her complaining of pain in the lower part of the abdomen, somewhat wandering in its situation, and although constant in some degree, yet imitating after-pains. Pulse rather more frequent than was pleasant; bowels had been moved; milk secreted; lochia lessening; tongue tolerably clean; some pain in the head, but only noticed upon being questioned about it. These symptoms were ushered in by rigors during the night before; they were, however, far from alarming. Applied fomentations, and gave a diaphoretic mixture. In about six or seven hours I visited her again, and found all the symptoms materially increased; pain in the abdomen acute; abdomen swollen, and exquisitely tender; pulse greatly accelerated; skin intensely hot; lochial discharge totally ceased; considerable pain in the head, with intolerance of light and extreme restlessness. I drew blood until an impression was made upon the pulse; directed five grains of calomel to be given every hour, of which she took seven doses. I saw her again in two hours, and found the symptoms by no means abated—increased they could not well be. I then applied a large flannel embued with a strong solution of camphor, as recommended by Mr. George. Upon visiting her early the next morning (Sunday, 18th), I learned that the pain had ceased almost immediately upon the above application. Pulse still frequent, but the febrile and inflammatory symptoms lessened. No stool: to take ℥ss. castor oil every two hours until it operates. In about four hours from this visit, I was sent for hastily; she was thought to be dying. I found she had had two or three stools, and had been out of bed to pass them, and thus induced syncope: she had taken a few spoonfuls of mutton broth, contrary to my wish, and nausea and vomiting ensued; pain in the region of the uterus returning. Repeated the solution of camphor; gave her tr. Opii gtt. xv. sp. Ammon. arom. gtt. xxx. stat. In the evening the sickness was unabated; the camphoretted spirits had not produced such prompt and decided relief as upon its first application, but still the pain was not so great; lochial discharge was returning, and pulse more tranquil. To take the effervescing mixture.

Monday, 19th, morning.—Pain, and tenderness, and swelling of the abdomen, have left her; bowels moved twice in the night; stools copious, offensive, and dark-colored; passed urine freely, which she had done all the time; milk freely secreted; lochial discharge freely and fully re-established. Continue alkaline mixture.

Evening.—The only complaint she makes is of soreness of the tongue and inside of the lips; bowels again moved twice; no mercurial fœtor nor tenderness of the gums.

From this time she went on progressively improving, with the exception of a little faintness a few days afterwards, arising from her imprudent exertion in leaving her bed to evacuate her bowels, but from which she very soon rallied, and is now as well as usual in the same time after her lyings-in.

C. M. Ashwin.

PROXIMATE CAUSE OF ICTERUS.

Read before the Boston Society for Medical Improvement, by **E. G. Davis, M.D.,** *and communicated for the Boston Medical and Surgical Journal by the Publishing Committee.*

What is the proximate cause of jaundice? We are commonly told that this disease is immediately produced by obstruction to the course of the bile, which, in consequence, is reabsorbed into the blood, and thence thrown upon the skin and the kidneys; and we are referred to various causes by which it is supposed this obstruction may be produced, as the remote causes of the disease. For one, I am inclined to doubt whether obstruction to the course of the bile be, in fact, the proximate cause of this disease. The obvious symptoms which inspire the suspicion of jaundice, both in the physician and the common observer, are the unusual yellow color of the conjunctiva, of the eyes, of the skin, and of the nails. On farther inquiry, it is generally found that the urine has a deeper color than usual, verging from a yellow to a red,—that the stools, on the contrary, are pale, and the bowels somewhat constipated; these last symptoms not always accompanying the others, and therefore not being viewed as essential to the disease. The natural inference is, that bile is now secreted by the kidneys with the urine, and also transudes through the exhalant or extreme vessels of the surface, thus pursuing two unusual channels. It is also evident, when the two last symptoms are present, that the bile does not pass into the alimentary canal as is usually the case, and we all agree in referring the constipation to the fact that the intestines are deprived of their usual stimulus. So far, there is no point on which any reasonable doubt can be entertained, nothing in which all will not unite in opinion. But in explaining the manner in which this transfer of function to distant and unconnected organs takes place, an hypothesis is resorted to, which, to say the least, the circumstances do not render necessary. It is said that the bile is secreted by the liver; but by mechanical or other causes, being prevented from flowing through the ducts into the intestines, is carried into the circulation and thence separated by the renual and cutaneous vessels. If in this explanation is implied the actual absorption of the bile and its subsequent secretion, the process seems to be unnecessarily complicated, since neither is required to explain the phenomena. It may be thought, however, that these processes are not in truth an absorption and secretion; that the bile is taken up by the vessels, mixed with the blood without change of properties and without becoming an homogeneous fluid with it; so that its subsequent separation implies little more than a mechanical division. Waving the question whether this explanation is in accordance with the laws which usually regulate the animal economy, we may inquire how it happens that this loose combination of blood and bile should never have been made evident by ocular demonstration: for surely if such a combination took place, the blood drawn from any part of the body, from the veins, for instance, must afford indubitable evidence of the fact. Such evidence, however, is not to be obtained; and it may well be doubted whether bile, as such, ever exists in the vessels in a state of mixture with the circulating fluid.

In the absence, therefore, of direct proof, we are not compelled, on the ground of analogy, to believe that the liver secretes the bile as usual in cases of jaundice. There are also very considerable difficulties in comprehending how, if the secretion does take place, the fluid is prevented from taking its usual course. The different modes in which this obstruction is supposed to happen, form, in fact, the groundwork of the different species of "icterus," and by considering these with reference to their proximate causes, we shall be better enabled to estimate the nature and the amount of the difficulties alluded to.

1. The first of these causes, and that which constitutes the "first species"

of Dr. Good, is the viscidity of the bile itself, by which it is prevented from flowing freely through the biliary ducts. It is not easy to understand how a substance can be secreted by the liver in a state too viscid to pass through its excernent vessels ; or how in this state it can well be taken up by the absorbents and conveyed into the blood. It is easy, says Good, to conceive, that the bile may become inspissated from various causes. True ; that it may so when prevented from flowing through the ducts, is easy to understand ; but how the inspissation occurs, as the primary fact, still remains to be determined. It is observed, too, that when the disease has existed in this form and has just been removed, the bile expelled both by the mouth and the anus, is found very tenacious and high-colored ; an interesting fact, but by no means unequivocal in its bearing on the question of the pathology of the disease. Indeed, if the bile were obstructed by its viscidity, it would be natural to expect that its character in this respect must have changed before it could pass at all through the biliary passages, and its appearance when expelled could be no criterion, whether it had been detained from this cause or from any other.

2. The second kind of obstruction to the passage of the bile is that produced by the formation of gallstones and their passage through the hepatic duct and ductus communis into the intestines. That an obstruction may and often does take place from this cause, there can be no doubt ; and under these circumstances the bile must be prevented from passing into the intestines, at least so long as the gallstone is lodged in the ductus communis. Accordingly we find that during the passage of one of these calculi, the dejections lose their usual color, becoming white or clay-colored. In a case in which the obstruction in this part of the passage continued for an unusual period, as for several days, it might well happen that the bile might be reabsorbed and appear as a secretion on the skin and in the urine. That this is not ordinarily the case is evident from the fact that neither yellowness of the skin nor high-colored urine are among the usual symptoms of chololithus, which, therefore, cannot with propriety be regarded as one of the causes of jaundice, although some of the symptoms of the latter disease are its usual concomitants.

3. The third cause of obstruction of the biliary ducts recognised by Good, is a spasmodic stricture in their course induced by acrimonious ingesta, hysteria, or violent passion ; and accompanied beside the other symptoms of jaundice, with great pain and tenderness in the hypogastrium. It is perhaps a bold measure to deny the existence of a disease so accurately defined and so minutely described ; but the notion of a tonic constrictive spasm in organs constituted as are the ducts in question, is one which, without proof and advanced simply as an hypothesis, is calculated to inspire considerable scepticism. That the symptoms described really exist in combination, may be admitted ; but there is nothing in this combination which goes to prove the occurrence of spasm, beyond what happens in other cases of jaundice, if we except the single circumstance of pain ; and this is amply accounted for in those cases in which the disease arises from acrimonious ingesta, flatulence, or repelled gout, which are described as the usual causes, without having any re-

course to a distinct explanation. The pain, too, is usually a transitory symptom, and is relieved by evacuations, while the others may continue for days or even weeks; and it certainly cannot be imagined that during all this period the bile is prevented from pursuing its proper course by a spasm of the ducts. Indeed, as we have said, no fact analogous to this is known to occur in any part of the system. Among the various diseases to which the glandular system is subject, a stoppage of its excretory passages by spasm is not known to be one. We know of nothing like spasm in the renal, urinary, salivary, or lachrymal passages, and where obstruction occurs in either, we seem justified, by the absence of muscular structure, in attributing it to a different cause.

4. In icteric jaundice, the fourth species, our author experiences an evident embarrassment in making the pathology of the species conform to that of the genus. In this, the seat of the disease is placed in the organ itself; and the bile is said to be obstructed by a derangement of the liver by scirrhus or otherwise; but it is not very clearly explained how such a derangement can cause any impediment to the flow of the bile through its own ducts.

5. In the fifth and last species, or icterus infantum, the bile is said to be obstructed by viscid meconium, which prevents it from flowing from the duct into the duodenum. It is no small objection to this mode of accounting for infantile jaundice, that it supposes the meconium to be in a state very different from that in which we ever observe it; one, namely, in which it can serve the purpose of a plug to the biliary ducts, and to occupy a limited portion of the intestine in which alone it could exert this influence. It is still more against this view of the subject, that although the meconium may be, and in fact always is, in favorable cases, removed from the bowels within a few hours, the symptoms of the disease do not usually disappear on the production of this effect, and will sometimes continue for several weeks, so that the old rule of "sublata causa tollitur effectus," is strangely violated.

There are two general objections, one of a positive and the other of a negative character, to the theory that obstruction of the bile is the proximate cause of jaundice. The first is, the large proportion of cases in which relief is obtained, and the means by which this object is effected. If the ductus communis were really the subject of tonic spasm; if the bile could really become so viscid as not to pass through the usual passages, and to present an impassable barrier to the preceding secretion; if the meconium could gain admission into the duct, and there act the part of a valve to prevent the egress of a particle of bile which might prepare a passage for the rest, we certainly should expect to find, in these cases, some serious commotion of the system, and one not easily appeased. Would it be likely that, the disease occurring in this manner, ninety out of an hundred cases should terminate without producing more than a temporary inconvenience? That scarce a case should be fatal, and that the remedial means required should be simply a cathartic, an emetic, or a course of tonic treatment; that the disease should exhibit no perceptible crisis, no sudden change, but should come on and again disappear gradually and by imperceptible gradations? That it should seldom be accompanied with severe pain, and almost never fatal? Certainly this combination of facts, when viewed in connection with the common theory, if not absolutely inexplicable, is among the most remarkable which the science presents.

But, secondly, there is no direct proof derived from examination, that the obstruction above mentioned is the proximate cause of jaundice. Indeed the disease, when idiopathic, is so seldom fatal, as to have afforded very limited means of comparing the post-mortem appearances with the previous symptoms. The only species, indeed, which is said to be frequently fatal, is that in which the obstruction exists in the liver itself, and we have already mentioned the difficulty of reconciling this species with the general description of the disease. We have on record, however, some cases terminating fatally, in which jaundice, if not the only disease, was the prominent and permanent symptom, in which the liver and ducts were subjected to a careful examination; and the evidence derived from these is the more valuable, since they are recorded as exceptions to the general rule, and not as furnishing any argument against its correctness. These cases, seven in number, are contained in the Archiv. G. de Med., from which they were transferred to the Boston Journal of May 31, 1831. In all, the yellowness of the skin is mentioned as very remarkable; and in all the structure of the organ was more or less impaired; but in one only did it appear that there existed any obstruction in the ducts.

Is it not, then, a more simple mode of accounting for this disease, to suppose that the bile, instead of being obstructed in its course, is actually not secreted by the liver in sufficient amount, and that other organs, in consequence, assume for the time a vicarious function. It is certainly not difficult to conceive of more than one state of the organ in which its function may be in a greater or less degree impaired, and that these may correspond to the different modifications of which the disease is susceptible. If yellowness of the skin and eyes, high-colored urine, and pale evacuations, be essential to the disease, would not all these arise from any cause preventing the secretion taking place, from the liver, and from a vicarious function being assumed by the kidney and the cutaneous exhalants. It may be urged, in reply, that such a function is foreign to these organs, and that to suppose them capable of separating this fluid from the blood is an unwarrantable assumption. But it is to be remembered that this difficulty, which stands alone by the present supposition, is, on the other, superadded to the previous hypothesis that the bile is absorbed into the circulating system. Unless, therefore, the two processes are more easily conceived than one, there seems no advantage in this respect to be conceded to the common theory.

Again, if to the common symptoms of the disease is frequently added nausea, languor, and uneasiness at the stomach; a combination which constitutes the first species or icterus cholœus; if in this species there is restlessness, dislike to exertion, and loss of appetite; if it occurs at the close of summer, when the system is peculiarly debilitated by heat; and if, lastly, there is little or no pain accompanying these symptoms; may they not with some probability be attributed to a torpid state of the organ in which, for want of vital energy, its usual function is suspended, although the blood is loaded with a principle which must be eliminated in order that the processes important to life may go on without interruption.

If, again, the symptoms are such as to indicate a more acute affection of the organ ; if there exist severe pain in the hepatic region, extending thence to the shoulder, with distension, sense of fulness and tenderness to pressure ; is there not reason to suppose that some inflammatory action of the organ has occurred, and that a diminished secretion of its usual fluid has been the immediate result ? This explanation will be rendered still more probable if the preceding remote causes have been such as to check the due action of the extreme vessels or to impede the digestion ; and thus cold applied to the extremities, or indigestible food, may very naturally produce the disease under this form.

In that form which is termed hepatic jaundice, and which has been ascertained to be generally connected with chronic inflammation or scirrhus of the organ ; in which the disease exists without pain, and is often one of the train of evils consequent on long-continued excess, high living, or residence in hot climates ; in this the proximate cause of the disease is so plainly pointed at, that it can hardly be mistaken by the most cursory observer. Indeed, the very remarkable expression by which it is endeavored to bring this within the generic definition of jaundice, shows that even in the opinion of its author, this definition was not properly applicable. The course of the bile, it is said, is obstructed, but rather in its secretion or separation from the body of the liver, than in its passage through the tubes.

Lastly, where icterus occurs as a disease of infancy—constituting the fifth species of Good—it is an obvious explanation of its appearance that the liver, instead of arousing at once from the dormant state in which it remained during fetal life, continues still inactive and requires some additional stimulus to rouse it to exertion. This explanation certainly seems more simple than that which would refer the disease to a cause connected with mechanical obstruction. The liver, as is well known, remains nearly quiescent in the fetus, and a very small proportion of bile is found in the meconium secreted before birth. It is the less to be wondered at, therefore, that this organ should not at once adapt itself to the altered state of the system of which it makes a part ; and should be slow in commencing that function which has but just become necessary to the animal economy. That the blood should so immediately require this elimination is indeed a singular circumstance, and well worthy of notice, but by no means more involved in one of the theories in question than in the other.

Finally, the influence of remedies and the usual period and termination of jaundice under its various forms, as they militate against the view of obstruction usually taken, are clearly in favor of that which refers it to diminished secretion. Indeed, it is extremely difficult to understand how these remedies can, in any proper sense, act as deobstruents on the ducts of the liver. Regarded with reference to their proximate effect, the remedies employed in jaundice may be reduced to four classes : nauseants, emetics, cathartics, and tonics. It were equally tedious and unprofitable to enter into a protracted consideration of the circumstances which render necessary the exhibition of these various remedies. It is sufficient to remark that if any modus operandi on the bilious system is common to all of them, it can scarce be any other than that of stimulating the organ to increased secretion. That this is the ordinary effect of articles in the three first classes, it requires no argument to show, since the fact is within the daily experience of every practitioner: and with respect to the operation of tonics, it is at least reasonable to suppose that the means by which they are enabled to give increased vigor to the digestive system is by exciting to renewed and more healthy action an organ which plays so important a part in this essential function.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, APRIL 4, 1832.

EFFECTS OF OPIUM EATING.

We took occasion not long since to remark on the singular analogy between the respective effects of opium and alcohol on the system, and to observe that it was the difference of the circumstances under which the two articles were commonly taken which produced so considerable a diversity in the symptoms resulting from them; and that as opium, when taken by an individual acted upon by external stimuli, as those of light and sound, often fails to produce somnolency, so alcohol, if swallowed under opposite circumstances, as in silence and darkness, proves directly soporific. Our opinion on this point has been recently confirmed by the result of some inquiries we have made of a person addicted to the habit of using laudanum in considerable quantity. The individual is a female forty years of age, who for some years has been in the habit of taking from half an ounce to an ounce of laudanum daily, for the sake of removing uneasy sensations apparently connected with a dyspectic state of stomach. She never experiences from its use the effect of sleepiness, nor are her hours of sleep at all affected by the very variable period at which she uses the drug. Her usual course is to take a dose a short time before each meal, and other doses at uncertain hours. Unless fortified in this manner, the stomach is so irritable as to be incapable of retaining food. The bowels are moderately, not excessively constipated, and as her habit is entirely sedentary, it is doubtful how far this circumstance is connected with the use of the drug. She is otherwise temperate in her habits.

To what extent, and in what manner, the use of opium is injurious to the animal economy, is a point which is yet undetermined, and which is the less likely to be settled, as the unhappy victims of this habit labor even more sedulously than those addicted to the use of ardent spirit, to conceal the fact from notice; while the effects being less marked, the concealment is much easier in the former case than in the latter. In fact, it not unfrequently happens that a physician attends a patient in the daily use of this indulgence, and remains entirely ignorant of its existence; while, on the other hand, the evil is of such limited extent compared with that of drunkenness, as to make it less desirable to bring it into public notice. The few statements which have been furnished us on this subject are either vague and general, as the accounts of travellers who have witnessed its effects in the East, or fanciful and exaggerated, as is the case with the Confessions of an Opium-eater. This last production, however interesting and highly wrought considered as a literary work, has too much of the marvellous and is too poetical to be consulted for sober facts. We see that attention has lately been attracted to this subject by a case which lately took place in England, the decision of which involved in some sort that of the question above alluded to. This arose out of a claim made by the representatives of a deceased nobleman in Scotland for the amount of insurance effected upon his life. The claim was resisted on the ground that the individual alluded to was an habitual opium-eater, and that this fact was not made known to the company at the time when the insurance was effected. The particulars of the case are mentioned in the thirty-fifth number of the Edinburgh Medical and Surgical Journal, and we refer our readers to that authority for its details. It is sufficient here to mention, that during the two years that intervened between the signing of the policy and the death of the Earl, his daily portion was from two to three ounces of laudanum, and that at one time the allowance per diem was not less than forty-nine grains of solid opium and an ounce of laudanum. The effect of this is somewhat variably stated by the evidence adduced on opposite sides; but the amount seems to be, that while under the influence of the drug he attended to business, saw and conversed with his friends, appeared cheerful, and exhibited no symptoms distinctly resembling intoxication: on the other hand, that his appetite became exceedingly impaired, that when he rose in the morning he was so stiff as to be unable to support himself, and that he was subject to depression and low spirits. Several physicians were examined, and some of high eminence, on the general question as to the influence of this habit on the general health; but as it happened, not one of them was able from his own experience to pronounce it prejudicial. The jury found the insurance company liable. In consequence of this decision, and apparently with a view to make up the deficiencies of his own evidence, Dr. Christison has come out in the Journal above mentioned with his views on this subject. The Doctor is unwilling to admit that the habitual use of this drug can be indulged in with entire impunity; but the facts which he adduces go to show that the injurious effects are often exceedingly slow in taking place; that when the constitution has become once inured to the poison, so that the aid of habit is fairly enlisted in defending the system, the nerves, as well as the stomach, will hold out for a wonderful period against its destructive influence. For the benefit of those who have not the opportunity of recurring to the article itself, we quote the following list of cases, which, even regarded as exceptions to a general rule, are sufficiently remarkable.

"1. A young lady of five-and-twenty has taken it largely for fifteen years. It was first administered secretly by her nurse to keep her quiet and save trouble; and the unhappy lady was subsequently compelled to keep up the practice for her comfort. She enjoys good health. 2. A female, a patient of mine in the Infirmary, a martyr to the rheumatism, took it for ten years previous to her fortieth year in the quantity of a drachm daily of solid opium. She then gave it up. Six months afterwards she was attacked with jaundice; subsequently she was several times severely ill of rheumatism; and she died in her forty-third year of consumption. This woman, however, led a licentious life from an early period. 3. A well-known literary gentleman, who has taken laudanum with some intermissions for twenty years, and occasionally to the extent of nine or ten ounces daily, has now attained his forty-fifth year. He is spare in form, looks older than he is, but is capable of undergoing a good deal of bodily fatigue, and enjoys tolerably good health so long as he takes sufficient exercise. His allowance when I had last an opportunity of conversing with him was about nine drachms of laudanum daily. 4. A lady in this city, after drinking laudanum to excess for upwards of twenty years, died about the age of fifty. No information could be supplied of the disease of which she died. 5. A lady of the same age takes about three ounces daily, and has used it for many years. She appears to enjoy good health. 6. A lady, about sixty years of age, has taken it above twenty years, and is in good health. 7. A charwoman, who had been in the daily practice of drinking two ounces of laudanum for many years, died at the age of sixty. The gentleman who has stated this fact, does not remember what disease she died of, although he dissected the dead body. 8. An eminent literary gentleman, I am informed, has been in the habit of taking laudanum since he was fifteen; and his daily allowance has sometimes been a quart bottle (twenty-six ounces), consisting of three parts of laudanum and one of alcohol. Enormous as this dose may appear, I am assured this fact is well known to his acquaintances. He is about sixty years of age, and enjoys good health. 9. A lady of seventy, now alive, has taken about an ounce of laudanum daily for nearly forty years. She enjoys tolerable health, and every year travels great distances to visit her friends. 10. An old woman of eighty died a few years ago, at Leith, after taking about half an ounce of laudanum daily for nearly forty years; and she enjoyed tolerable health all the time."

The secret, no doubt, by which both alcohol and opium are so often rendered apparently innoxious, is to be found in their regular and systematic use, as distinguished from occasional indulgence in excessive doses. In regard to opium, this precaution is the more likely to be adopted, since an overdose is known to be attended with immediate danger; and those who acquire the habit are compelled to feel their way and increase the quantity only as the susceptibility becomes obviously diminished. The fitness for this kind of training, however, must vary in different individuals with other peculiarities of constitution; and there is little doubt but many pay with their lives the penalty of their imprudence, before the habit can properly be said to be established.

With regard to constipation, as an effect of this habit, it seems not to be more constant than the other ill effects which are attributed to its use; and it may be doubted whether in those who have become duly seasoned to its employment, this circumstance continues to constitute an inconvenience. The opium-eaters of the East are not compelled to use cathartic medicine, and in the case at least of those above mentioned, no laxatives at all appear to have been resorted to.

NEW CURE FOR CONSUMPTION.

A correspondent of the Revue Medicale strongly recommends *snails* in cases of incipient phthisis. The best mode of administering the remedy is said to be in substance, the commencing dose to be a single snail eaten raw from the shell three times in a day. The number should gradually be increased, till it reaches twenty or more daily, and then varied or continued without change, according as the stomach is found to digest them. Many patients have been capable of taking forty daily, and two carried the dose to sixty-six without inconvenience. One of these patients having been for several years subject to catarrhal complaints on slight exposure, was at length attacked with cough, febrile evacuations, purulent expectoration, and other symptoms of approaching consumption. These went on increasing in spite of every remedy; till the patient was at length induced to put himself under the care of the snail doctor. When he had carried the dose to twenty-two repeated three times daily, the symptoms exhibited a marked amelioration, and by continuing this amount for the space of fifteen days, the state of things was so far improved as to promise a speedy recovery.

THE SUNDERLAND DISCOVERY.

We alluded, a few weeks ago, to the proposition of Dr. Clanny, of Sunderland, to the British Government, to unfold a cure for the Cholera, which he had discovered, on the receipt of a sufficient compensation. The reply to the Doctor was such as he merited; and finding he could not *sell* his discovery, he has generously *given* it to the public. What it is, may be best told in the language of the London Medical Gazette.

"Every one knows," says the Editor of that Journal, "how troublesome is the purging in this complaint, and how even enemata are often speedily returned. This seems to have been the great subject of the Doctor's meditations, and constitutes the great triumph of his genius. Well can we imagine the exultation of his *heureka* when the bright idea struck him, amid his contemplations on the fundamental nature of the malady. Others had wasted their efforts in attempting to control the action of the bowels by various medicines; *he* resolved to go directly to the point—*to bung up his patients*, and fasten the plug with a bandage,—

as we wire down the cork in a bottle of ginger beer! Such, in sober seriousness, is the only proposal in Dr. Clanny's mode of treatment which has the slightest claim to novelty, and therefore we presume that it formed the subject of his correspondence with the Lords of the Council. Blind and ignorant government! not to purchase such important novelties—not to reward so great a discoverer!

PRESERVATION OF HEALTH IN THE CITY.

The ordinances of the City Government for the preservation of cleanliness and prevention of disease during the approaching summer, have been very seasonably published; and as there is a possibility that the cholera may reach us before its close, we are happy to find that these ordinances are to be rigorously enforced. In one point, they appear to us essentially deficient. It is ordained that all house offal, whether consisting of animal or vegetable substances, be taken away by the city scavengers *no less than twice in each week*, during the months June, July, August, and September. This is not often enough. It should be done during those months *every day*. We have suffered much from this delay in years past, and it has been a subject of general regret that provision should not have been made for a more frequent visit of the scavengers. In very hot weather house offal is generally offensive the second day, and always on the third; and it is to be hoped that so great an impediment to the comfort, if not to the health of the citizens, will be removed by some further act of the City Council.

Whole number of deaths in Boston for the week ending March 30, 30. Males, 11—Females, 19.

Of consumption, 5—paralysis, 1—lung fever, 3—inflammation on the lungs, 1—scarlet fever, 3—dysentery, 1—infantile, 2—typhous fever, 1—measles, 1—canker rash, 1—influenza, 1—canker, 1—croup, 2—throat distemper, 1—accidental, 1—spasms, 1—old age, 1—unknown, 3.

ADVERTISEMENTS.

HISTORY OF THE CHOLERA MORBUS.

Just published by CARTER & HENDEE, a Medical and Topographical History of the Cholera Morbus, including the mode of Prevention and Treatment, by Scouttetten, adjunct Professor at the School of Medicine at Strasburg, member of the Royal Academy at Metz, &c. &c., with a Report read at the Royal Academy of Medicine at Paris, Sept. 17, 1831. Translated from the French, by A. Sidney Doane, A.M., M.D. m14

REPORT OF THE ROYAL ACADEMY OF MEDICINE to the Minister of the Interior, upon the Cholera Morbus, published by order of the French Government. Translated from the French by John W. Sterling, M.D. Just received by CARTER & HENDEE. March 14.

THE BOSTON MEDICAL AND SURGICAL JOURNAL

IS PRINTED AND PUBLISHED EVERY WEDNESDAY, BY CLAPP AND HULL,

At 184 Washington St. corner of Franklin St., to whom all communications must be addressed, POST PAID. It is also published in Monthly Parts, on the 1st of each month, each Part containing the numbers of the preceding month, stitched in a cover.—Two volumes a year, of 420 pages each.—Price $3,00 per annum in advance, $3,50 if not paid within three months, and $4,00 if not paid within the year.—*Postage the same as for a newspaper.*